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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,126	03/17/2000	Noriyoshi Satoh	NGB-32439	2947
116 7590 04/22/2008 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108				
EXAMINER				
CHAN, RICHARD				
ART UNIT		PAPER NUMBER		
2618				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

09/528,126

Applicant(s)

SATOH ET AL.

Examiner

RICHARD CHAN

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date: \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see examiner interview filed 3/14/08, with respect to the rejection(s) of claim(s) 1 and 5 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sheldrake et al (US 6,375,026).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jochheim (US 6,137,050) in view of Maldonado (US 5,852,421) in further view of Sheldrake et al (US 6,375,026).

Regarding claims 1 and 5, Jochheim teaches a radio terminal device (fig. 1) having: a printed circuit board having a plurality of electronic components mounted thereon and having a front surface and a rear surface (fig. 1, element 7) and (Col.2 line 57-60); a resin housing covering the rear surface of the printed circuit board (element 5:

Jochheim describes the process of making the covering is done with an injected mold, inherently a plastic or some sort of a resin);

Jochheim fails to specifically disclose an internal antenna disposed on the rear surface of the printed board wherein at least a part of the printed circuit board, on which the antenna is disposed, is accommodated in the resin housing and a metal housing covering the front surface of the printed circuit board.

In related art, Maldonado teaches an internal antenna disposed on the rear surface of the printed circuit board wherein at least a part of the printed circuit board, on which the antenna is disposed, is accommodated in the resin housing (col. 7, lines 25-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Moldanado's antenna means with Jochheim's existing radio receiver in order to improve the antenna coupler provided Maldonado and thereby increase RF reception and increase battery life and inherently talk time of the terminal as suggested by Maldonado.

And further in related art, the Sheldrake teaches of a radiotelephone with a metal front plate housing 1 (Fig.1) (Col.2 line 22-26).

It would have been obvious to one of ordinary skill in the art to implement a metal front plate housing as disclosed by Sheldrake to the radio terminal device of Jochheim in order to provide a sturdy front plate for the radiotelephone apparatus.

Regarding claims 2 and 6, Jochheim teaches the resin housing and the metal housing are joined with each other by a curved line from a view point of the side of the radio terminal device (figures 1 and 2, element Y).

Regarding claims 3 and 7, Jochheim as modified by Maldonado further teaches the printed circuit board and the metal housing are connect with each other electrically (Maldonado, fig. 1b, & col. 4, lines 48-50).

Regarding claims 4 and 8, Jochheim fails to specifically disclose the antenna is disposed near an end portion in the remaining part of the printed circuit board. However, Maldonado does disclose the antenna is disposed near an end portion in the remaining part of the printed board (fig. 1b; col. 7, lines 25-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include Maldonado antenna means with Jochheim's existing radio receiver in order to increase RF reception.

Regarding claim 9, Jochheim as modified by Maldonado teach the antenna is accommodated in the resin house (Maldonado: col. 7, lines 25-28).

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Chan whose telephone number is (571) 272-0570. The examiner can normally be reached on Mon - Fri (9AM - 5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard Chan/  
Examiner, Art Unit 2618

/Nay A. Maung/  
Supervisory Patent Examiner, Art  
Unit 2618